

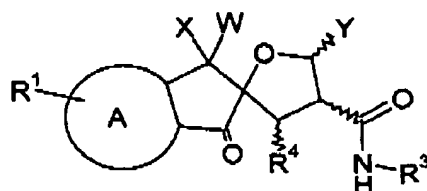
AMENDMENT  
U.S. Appl. No. 10/772,721

Amendments to the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A compound of formula (I), or an enantiomer or diastereoisomer thereof:



(I)

wherein:

A is a 5- or 6-membered carbocyclic ring;

X is H and W is OH; or X and W together form a carbonyl group or an epoxide;

R<sup>1</sup> is H; or one or two substituents independently selected from the group consisting of: hydroxy; halo; lower alkyl; lower alkoxy; lower thioalkyl; haloalkyl (e.g. trifluoromethyl); or -C(O)R<sup>2</sup> wherein R<sup>2</sup> is lower alkyl, aryloxy or benzyloxy;

Y is phenyl optionally mono- or di-substituted with R<sup>5</sup> or C(O)R<sup>6</sup>, wherein R<sup>5</sup> is lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile or trifluoromethyl, and R<sup>6</sup> is lower alkyl, lower cycloalkyl, lower alkoxy, hydroxy or trifluoromethyl; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered carbocyclic ring;

~~or Y is ethylene-phenyl, said ethylene moiety being optionally mono-substituted with lower alkyl, wherein said phenyl ring is optionally mono- or di-substituted with R<sup>5</sup> or C(O)R<sup>6</sup>, wherein R<sup>5</sup> and R<sup>6</sup> are as defined above; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered carbocyclic ring;~~

R<sup>3</sup> is selected from the group consisting of: aryl, mono- or di-substituted with:

Het, said Het optionally mono- or di-substituted with lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile, trifluoromethyl, C(O)R<sup>6</sup> wherein R<sup>6</sup> is as defined above;

## AMENDMENT

U.S. Appl. No. 10/772,721

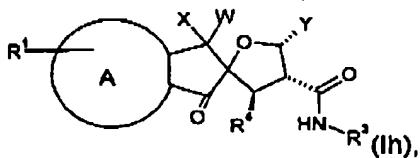
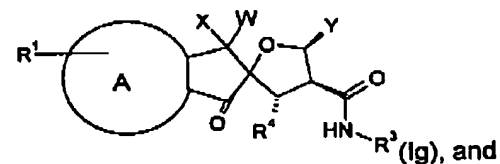
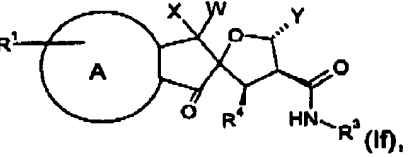
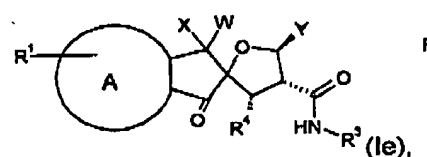
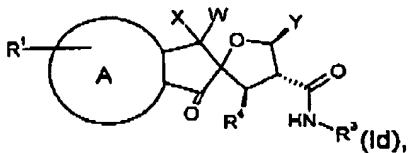
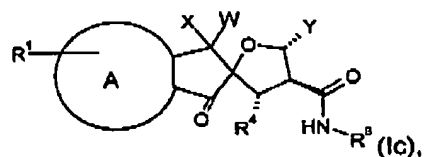
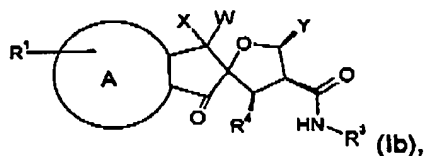
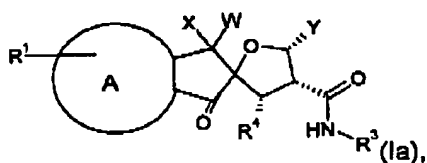
wherein each Het is independently a five-~~or six~~-membered, unsaturated heterocycle containing from one to three heteroatoms selected from nitrogen, oxygen and sulfur;

~~said Het being optionally fused with a saturated or unsaturated 4 to 6-membered ring optionally containing a heteroatom selected from N, O and S;~~

and

$R^4$  is a carboxylic acid, a salt or an ester thereof.

2. (original) A compound selected from:

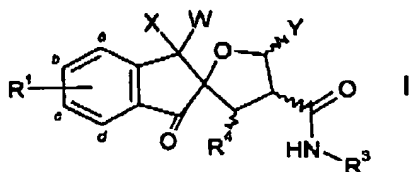


wherein A, X,  $R^1$ , Y,  $R^3$ , and  $R^4$  are as defined in claim 1.

3. (original) A mixture of compound I(a) and compound I(b), each according to claim 2.

AMENDMENT  
U.S. Appl. No. 10/772,721

4. (original) A mixture of compound I(c) and compound I(d), each according to claim 2.
5. (original) A compound mixture according to claim 3, wherein said mixture is racemic.
6. (original) A compound mixture according to claim 4, wherein said mixture is racemic.
7. (original) A compound I(a) according to claim 2, as a pure enantiomer.
8. (original) A compound I(b) according to claim 2, as a pure enantiomer.
9. (original) A compound I(c) according to claim 2, as a pure enantiomer.
10. (original) A compound I(d) according to claim 2, as a pure enantiomer.
11. (original) A compound according to claim 1 wherein X is H and W is OH; or X and W form a carbonyl group.
12. (original) A compound according to claim 9 wherein X and W form a carbonyl group.
13. (original) A compound according to claim 1 wherein ring A is a benzene ring, as represented by the formula I':



wherein X, R<sup>1</sup>, W, Y, R<sup>3</sup>, and R<sup>4</sup> are as defined in claim 1.

## AMENDMENT

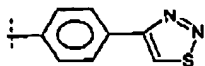
U.S. Appl. No. 10/772,721

14. (original) A compound according to claim 1, wherein  $R^1$  is H; or one or two substituents independently selected from the group consisting of: hydroxy; halo; lower alkyl; lower alkoxy; lower thioalkyl; haloalkyl; or  $-C(O)R^2$  wherein  $R^2$  is lower alkyl, aryloxy or benzyloxy.
15. (original) A compound according to claim 14, wherein  $R^1$  is H, halo or  $C_{1-4}$  alkyl.
16. (original) A compound according to claim 15, wherein  $R^1$  is H, fluoro or methyl.
17. (original) A compound according to claim 16, wherein  $R^1$  is H or methyl.
18. (currently amended) A compound according to claim 1, wherein Y is phenyl optionally mono- or di-substituted with  $R^5$  or  $C(O)R^6$ , wherein  $R^5$  is lower alkyl, lower cycloalkyl, lower alkoxy, halo, hydroxy, nitrile or trifluoromethyl, and  $R^6$  is lower alkyl, lower cycloalkyl, lower alkoxy, hydroxy or trifluoromethyl; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered carbocyclic ring; ~~or Y is ethylene phenyl, said ethylene moiety being optionally mono-substituted with lower alkyl, wherein said phenyl ring is optionally mono- or di-substituted with  $R^5$  or  $C(O)R^6$ , wherein  $R^5$  and  $R^6$  are as defined above; said phenyl ring being optionally fused with a saturated or unsaturated 4 to 6-membered carbocyclic ring.~~
19. (currently amended) A compound according to claim 18, wherein Y is naphthyl, ~~CH=CH phenyl,  $C(CH_3)=CH$  phenyl or phenyl~~, wherein the phenyl ring is optionally mono- or di-substituted at the 3, 4, or 5 position with  $R^5$ , wherein  $R^5$  is halo,  $C_{1-4}$  alkyl, hydroxy,  $CF_3$  or  $NHC(O)-(lower\ alkyl)$ .
20. (original) A compound according to claim 19, wherein Y is phenyl optionally substituted with: 3,4-Cl; 3-F,4-Cl; 3-Cl,4-F; 3,4-Br; 3-F,4- $CH_3$ ; 3,4- $CH_3$ ; 3- $CF_3$  or  $NHC(O)-(CH_2)_3CH_3$ .
21. (original) A compound according to claim 20, wherein Y is phenyl optionally substituted with: 3,4-Cl or 3,4-Br.

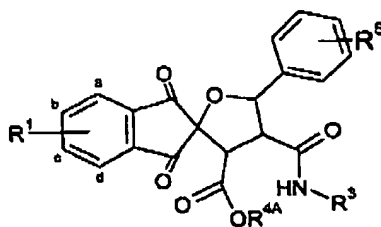
## AMENDMENT

U.S. Appln. No. 10/772,721

22. (original) A compound according to claim 1, wherein  $R^3$  is:



23. (currently amended) A compound selected from the group consisting of: compounds having the following formula:



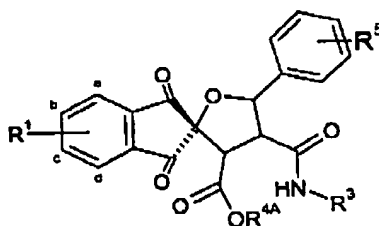
, wherein  $R^{4A}$ ,  $R^1$ ,  $R^5$  and  $R^3$  are as defined as follows:

Cpd #	$R^{4A}$	$R^1$	$-R^5$	$-R^3$
4028	Na	--	3,4-Cl	
1052	Na	--	3,4-Cl	
1076	Na	--	3,4-Br	
1083	Na	--	3,4-F	

and

24. (original) A compound selected from the group consisting of: compounds having the following formula:

AMENDMENT  
U.S. Appln. No. 10/772,721

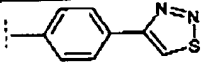
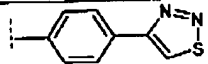
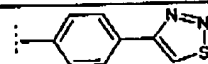


wherein  $R^{4A}$ ,  $R^1$ ,  $R^5$ , and  $R^3$  are as defined as follows:

Cpd #	$R^{4A}$	$R^1$	$-R^5$	$-R^3$
A1001	Na	—	3,4-Br	 stereochemistry undetermined
A1002	Na	—	3,4-Br	 stereochemistry undetermined
A1006	Na	mixture b-Me & c-Me	3,4-Cl	 stereochemistry undetermined
A1007	Na	b-Me	3,4-Cl	 stereochemistry undetermined
A1008	Na	c-Me	3,4-Cl	 stereochemistry undetermined

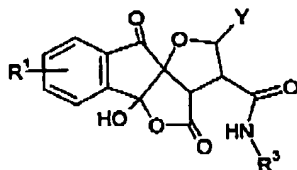
## AMENDMENT

U.S. Appl. No. 10/772,721

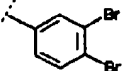
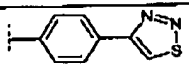
Cpd #	R <sup>4A</sup>	R <sup>1</sup>	-R <sup>5</sup>	-R <sup>3</sup>
A1009	Na	mixture b-Me & c-Me	3,4-Br	 stereochemistry undetermined
A1010	Na	b-Me	3,4-Br	 stereochemistry undetermined
A1011	Na	c-Me	3,4-Br	 stereochemistry undetermined

; and

25. (original) A compound having the following formula:



wherein R<sup>1</sup>, Y, and R<sup>3</sup> are as defined as follows:

Cpd #	R <sup>1</sup>	-Y	-R <sup>3</sup>
3013	c-Me		

**AMENDMENT**  
**U.S. Appln. No. 10/772,721**

26. (original) A pharmaceutical composition comprising an anti-papillomavirus virally effective amount of a compound of formula (I), according to claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.
27. (original) A method for treating a papillomavirus viral infection in a mammal by administering to the mammal an anti-papilloma virus virally effective amount of a compound of formula (I), according to claim 1, or a therapeutically acceptable salt or ester thereof, or a pharmaceutical composition comprising an anti-papillomavirus virally effective amount of a compound of formula (I) according to claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.
28. (original) A method for inhibiting the replication of papillomavirus by exposing the virus to an amount of a compound of formula (I), according to claim 1 inhibiting the papilloma virus E1-E2-DNA complex, or a therapeutically acceptable salt or ester thereof, or a composition comprising an anti-papillomavirus virally effective amount of a compound of formula (I) according to claim 1, or a therapeutically acceptable salt or ester thereof, in admixture with a pharmaceutically acceptable carrier medium or auxiliary agent.
29. (original) A method of preventing perinatal transmission of HPV from mother to baby, by administering a compound of formula (I), according to claim 1, to the mother prior to giving birth.